

SMUG BYTES
Volume 5, Number 1
JANUARY 1988

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* SINCLAIR MILWAUKEE USERS GROUP * F.O. Box 101 Butler, WI 53007 *

THIS MONTH:

*

- How To Program Part II
- Rudy's SQ Notes
- Educational Notes
- Presidents Message
- And Other Great Things

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NEXT MEETING DATE: 2/14/88

* Send all contributions by the * first day of the month to:

Bill Heberlein Editor SMUG BYTES 5052 N. 91st Street. Milwaukee, WI 53225

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- 251 5291

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Meeting date 4th Wed. of the month.

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Meeting date see Spectrum group

*

So You Want To Write A Program!

First we will code the menu function. The necessary items have been described when we layed out the first level of things we want to do within the program. Note the menu program can be used in other programs.

5 REM The menu

10 BORDER 5: PAPER 5: INK 0: CLS: LET BRITE=0: LET MENU=10

20 PRINT AT 5,10; "USE THE 6 OR 7 KEYS FOR ARROW UP OR DOWN

25 PRINT AT 7,10; "PRESS ENTER WHEN THE ARROW IS ON THE LINE WANTED"

30 FOR N=1 TO 8

40 LET MENU=MENU+1: GOSUB 600+(N*10): NEXT N: LET MENU=10

45 LET N=1

50 IF MENU < 11 THEN LET MENU=18: LET N=8

60 IF MENU > 18 THEN LET MENU=11: LET N=1

70 PAUSE 10

BO PRINT AT MENU.2:"=>": LET BRITE=1: GOSUB 600+(N*10)

90 IF INKEY\$="6" THEN FRINT AT MENU.0:" ": LET BRITE=0: GO SUB 600+(N*10): LET BRITE=1: LET MENU=MENU+1: LET N=N+1: GO TO 50 100 IF INKEY\$="7" THEN PRINT AT MENU.0:" ": LET BRITE=0: GO SUB 600+(N*10): LET BRITE=1: LET MENU=MENU-1: LET N=N+1: GO TO 50 110 IF CODE INKEY\$=13 THEN GO SUB (1000*N): GO TO 10

120 GO TO 90

610 PRINT AT MENU, 10; BRIGHT BRITE; "START A NEW LIST OF NAMES" 615 RETURN

620 PRINT AT MENU, 10; BRIGHT BRITE; "UPDATE THE LIST"

615 RETURN

630 PRINT AT MENU, 10; BRIGHT BRITE; "SORT THE LIST BY NAME" 615 RETURN

640 PRINT AT MENU, 10; BRIGHT BRITE; "SORT THE LIST BY BIRTHDAY" 615 RETURN

650 PRINT AT MENU, 10: BRIGHT BRITE; "SEARCH THE DISCRIPTION AREA"

615 RETURN

660 PRINT AT MENU, 10; BRIGHT BRITE: "PRINT MENU"

615 RETURN

670 PRINT AT MENU, 10; BRIGHT BRITE; "SAVE THE LIST"

615 RETURN

680 PRINT AT MENU, 10: BRIGHT BRITE: "QUIT"

615 RETURN

Taking the Dimension function of the New List function from last month we will code this function. This seems to be at the coding level. Keep in mind we will have to add as we program.

1000 REM 100 entries each 70 bytes long this will be our list 1010 DIM L\$(100,70) 1015 REM second sort DIM. This will be the area for the birthday sort. Will be 100 entries and 6 bytes long. 1020 DIM B\$(100.6) 1025 REM this will give me two ways to enter the list. 1030 REM other necessary entries can be added as needed. Now we will add the areas for the pointer and sort key. 1045 REM set the pointer (L) and the sort key (B). 1050 LET L=0: LET B=0 1990 RETURN

Now when the 1000 area is performed the list will be reset and all new entries will be required to rebuild all entries.

BY R.A. HILSMANN

As you read this, 1988 should be upon us, hopefully a year that will see a continued flow of new software and peripherals for the Timex & Sinclair Systems.

I will try to add some software via this column to your collection. I'm certain you will find some of them useful.

Lets start with one of the more practical programs, one that has been around for a while, called "VU-FILE" known for it's speed and flexibility. Only one problem, it's written to accommodate only 32 col. printouts! Is it?

Rather then rewriting the code portion, let's examine how it manipulates the printer. Simple, it dimensions a chr\$ string called F\$ to 32, then writes the data to it, since it is the first variable defined upon running the program, its location is well known.

It would be easy to re-dimension F\$ to 80, but the code will continue to write only a maximum of chr\$ to it. Now one could change the code of course, so it would write more then 32 chr\$ to F\$, but there is still the screen. which will only display 32 columns! Lets keep it simple and work with what we've got, let's not do a major re-write of the code (I looked at it, and found it's probably easier to find Timbuktu:without a map then to find that portion of code that manipulates F\$).

F\$ is forwarded to the printer via the LPRINT command, that's easy, so let's just send one F\$ after another to the printer, but hold it, F\$ is 32 chr\$ long (your text and the rest spaces).

We have to print F\$ (TO X), which means we have to find out what X is for every string. This is where a 19 byte subroutine located at 28254 decimal comes in. It will check F\$ from the last chr\$ back to

the first chr\$ for code greater than 32, if it finds such a chr\$ it will then add one space and put the count (X) to location 28286. The space is added, so that if F\$ does not contain text, the field will be printed as a blank.

I added a few bells & wistles to the program as well, like automatic Tabsetting, which is done using a search routine which will check each field for lenght of text. will then give you the tabsetting information on the screen, so that you will be able to set tabs as is, or make any changes you desire. Another feature is automatic printer formating, let's say you have several fields whose combined textlenght per line is greater then 80 chr\$, the program will then automatically switch over to elite, the text-lenght will exceed 96 chr\$ the program will now switch to condensed printing, which will you as much as 136 chr\$ per line.

The programs and code you will find at the following pages where written for the Timex 2068 being in the Sinclair mode, this will give you enough space to add all the extra basic I have added (VU FILE was originally written for the Sinclair). To run the basic in the Timex mode you would have to add VAL "" to numbers, this will slow the program down somewhat, but will leave you with enough memory to use this program in the Timex mode. There also is a poke table on the following pages, which you should poke into memory to make the code

The code is set up to run printers which need Epson printer codes for elite and condensed printing, look up the codes your printer needs and poke such numbers, if different, to the locations given later. I must point out, that this program is written to run with the OLINGER system and would need a printer-driver to run on other systems, sorry about that, but so much for superior systems.

functional for the Timex mode.

Now to the laborious part of all this, frankly I'd rather write a program from scratch then to enter one from paper. There is an easy way out, but more about that later.

First thing you would want to do is to set up your disk-drive or tape-deck, now type in the basic program as listed with the 2068 being in the Timex mode, if your saving to tape you should save the program before eyou enter lines greater than 7000. After you have entered all the lines, run it using GO TO 8000, if saving to disk, save the basic portion now with; CLEAR: SAVE /"yu file" -LINE 10. If you wish to waste memory on your disk or tape, you should next load the screen for VU FILE, break after has loaded and save it using SAVE /"vu-file"SCREEN\$.

Now load in the excisting code for VU FILE to location 28288, enter the next basic program and run it, next save the code using; SAVE /"VU-file"CODE 28254,7250. It should be clear by now that the / after SAVE should be omitted in the program if your saving to tape.

Since the second basic program is

only a loader program for the code, it need not be saved.

Lets now talk about on how to use the program once you have it all safely tucked away on disk or tape. Load vu file basic as usual and also manipulate the program as usual once loaded, before using the print option you should make sure that all fields are flush left at tab 0, use the "Printer Layout" option at the main menu to accomplish this. Each field has to be at a seperate line.

After returning to the file, press "P" as usual to start printing, you will be asked if your using the 2040 printer at this point, just enter N to print to a centronic type printer. The program will ask you next to press the P key twice, once to get the menu back and once more to start the

file formating routine. Files should start paging on the screen now, checking each for lenght. After the routine has finished, press either the "P" key to leave tabs for each field as they appear on top, or enter tabs for each field, making any changes as you desire. If you wish that a field is not to be printed, enter a negative number like -1. You have to recalculate each following tabsetting if you do so, because each following is now in a different position.

Make sure you reset the file now before doing a select or a printout.

A few tips on this new way of printing files to paper. When setting tabs different than the computer has figured them, be sure not to overlap the previous field, or the next field will be printed of the next line, this of course coulbe used to your advantage.

If you like to use titles with your fields, consider using them as headers instead, titles will probably look better as headers anyways. Enter headers as a file, one title for each field. Using the select option, such header can be printed as the first line followed by a manual line feed before selecting the next items to be printed.

Yes the program will give you a chance to use the select option, you will not have to reformat the printer or the files, just keep pressing the P key after selections have been made.

One last item, do not fill all the memory up, leave about 1K for the code I added, there is no way I could protect it. Pressing the I key when in the file menu will tell you how much memory is left.

If you feel that you are to laze to type all those numbers into memory, relax! This program is available for \$5 to club-members, \$4 if you get it from me at a meeting,

and bring your own tape or disk. (OLINGER only please).

Non-members please send \$ 7 including a note telling me which program you would like (VFILE+80), and which system your running,

TO:
IMPEX SOFTWARE
c/o R.A. Hilsmann
P.O. BOX 45
MENOMONEE FALLS, WI. 53051

One thing though, I can only sell you the additional code and the new basic program, you would have to add the original code VU FILE yourself. Also you may make as many copies as you like for your friends (you would do it anyways), as long as you dont sell them. The tape or disk will have both the Timex & Sinclair version on Disks will only be for quad-density drives using the OLINGER system (sorry thats all I have on the Timex system).

This is the Poke-Table for the Timex version. POKE: 64528,22 64529,43 64599,215 64701,22 64702.43 65132,22 65133,43 65157,161 65158,49 65169,219 65170,33 65178,242 65183,100 65184,18 65193,48 65194,18 65259,116 65260,46 65279,48 65280,18

Also change all numbers to VAL"" for the timex basic version.

POKE LOCATIONS FOR YOUR PRINTER

64901 holds dec. 77 for ELITE printing. This code is preceded by OUT 127,27 followed by OUT 127,77

64925 holds dec. 15 for CONDENSED printing. Condensed printing requires only an OUT 127,15 for Epson printers, should your printer vary, then poke above locations with a correct code.

Now enter the programs here and on the following page.

10 CLEAR VAL "28253": DIM f\$(V AL "32"): BORDER SGN PI: PAPER SGN PI: INK VAL "7": LOAD /"VU-file"CODE: LOAD /"VU Print"CODE: LET f= NOT PI: LET a=VAL "28291": GO TO USR VAL "28288"

1000 CLS: GO SUB VAL "6e3": GO TO USR a TO USR 1010 SAVE /9\$CODE S,L: GO TO USA 2000 CLS : GO SUB VAL "6e3": GO SUB_VAL "7e3": LOAD /g\$CODE s: G 0 TO USR a 3000 IF f=1 THEN GO TO 5e3 3010 IF f=2 THEN GO TO 3040 3020 IF f=3 THEN GO TO 4e3 3020 IF f=3 THEN GO TO 4€3
3030 RANDOMIZE USR 64468: LET f=
2: LET i=PEEK 34215: LET n=PEEK
34199*i: LET l=n: DIM k(i): PRIN
T AT 2,0; "Which printer? EXECUTED TO THE PRINT THE PRINTER PRINT AUSE 3040 RANDOMIZE USR 64532 3090: LET n=n-1: IF n>0 THEN GO TO_USR_a 3160 FOR s = 1 TO i: INPUT "ENTER TAB SETTING OR 'P'"'"-1 TO SKIP FIELD"' LINE 9\$: IF 9\$="P" OR 9\$ ="P" THEN GO TO 3180 3170 LET k(s) = VAL 9\$: PRINT k(s);" ";: NEXT s: GO TO 3190 3180 LET h=65308: FOR s=1 TO i: LET k(s) = PEEK h: LET h=h+2: NEXT 3190 PRINT AT 0,0; "BE SURE YOU RESET THE FILES" "THEN DO SELECT BEFORE PRESSING THE 'P' KEY FO R PRINTOUT" "PRESS ANY KEY TO CONTINUE NOW",: LET f=3: LET h=1: PAUSE 463: GO TO USR a 4000 RANDOMIZE USR 28254: LET J=PEEK 28286: IF K(H) <0 THEN GO TO 4020 4010 LPRINT TAB K(H);F\$(TO J); 4020 LET H=H+1: IF H=I+1 THEN LE H=1 4030 LET L=L-1: IF NOT L THEN LE T f=0

4040 GO TO USR a

5000 LPRINT f\$(TO 32): LET t=t1: IF NOT t THEN LET f=0

5010 GO TO USR a

6000 INPUT "Which drive (1 TO 4)

";h: LET /d=h-SGN PI: PRINT ''

"Token CAT for catalog"

6010 INPUT "file name: "; LINE g

\$: IF CODE g\$=VAL "207" THEN CAT

: GO TO VAL "6010"

6020 LET f\$(TO VAL "10") = g\$: LE

T s=CODE f\$(VAL "11") + VAL "256" *

CODE f\$(VAL "12"): LET t=CODE f\$

(VAL "13") + VAL "256" * CODE f\$(VAL "14"): RETURN f =0 "14"): RETURN 7000 PRINT /" "14"): KEIURN
7000 PRINT '" GO TO USR A TO RET
URN TO VU-FILE": RETURN
8000 RESTORE 9000: LET y=64468
8010 FOR X=y TO y+820
8020 READ L: POKE X,L
8030 NEXT X: PRINT "Insert disk
then press enter": PAUSE 0
8040 SAVE /"vu print"CODE 64468, 8050 DELETE 8000,9999

9000 DATA 205,252,254,33,8,255,3 4,108,92,33,28,255,1,59,0,62,0,2 05,1,255,33 4.108,92,33,28,255,1,59,0,62,0,2
95,1,255,33
9005 DATA 1,0,34,6,255,33,151,13
3,110,38,0,35,34,10,255,33,157,1
33,110,38,0,35,34,10,255,33,157,1
9010 DATA 34,12,255,42,10,255,43
,237,91,12,255,205,189,254,34,16,255,33,88,39,217
9015 DATA 201,205,252,254,33,8,2
55,34,108,92,33,2,0,229,33,0,0,2
09,205,237,254
9020 DATA 205,135,254,30,0,67,10
4,101,99,107,105,110,103,32,97,1
08,108,32,102,105,101
9025 DATA 108,100,115,32,102,111
,114,32,108,101,110,103,104,115,62,6,215,33,94,110,205
9030 DATA 156,254,68,77,205,82,3
0,33,126,110,110,38,0,34,14,255,42,14,255,229,42
9035 DATA 3,255,42,68,77,205,82,3
0,33,126,110,110,38,0,34,14,255,42,14,255,229,42
9035 DATA 3,255,25,112,254,124,18
1,202,139,252,42,6,255
9040 DATA 3,255,225,115,35,114,42
1,255,35,34,8
9045 DATA 255,42,6,255,229,42,12
,255,35,34,8
9045 DATA 255,42,6,255,229,42,12
,255,35,34,8
9045 DATA 255,42,16,255,205,181,25
4,124,181,194,193
9055 DATA 252,33,68,39,217,201,3
3,0,0,34,18,255,33,0,0,34,20,255
33,1,0
9060 DATA 34,22,255,229,42,12,25
5,34,24,255,225,195,47,253,42,22

Enter this basic proggram next.

10 RESTORE 100

20 FOR X=28254 TO 28284

30 READ L: POKE X,L: NEXT X

40 PRINT "PRESS ANY KEY TO SAV E CODE": PAUSE 0: SAVE /"VU-file "CODE 28254,7250

100 DATA 229,213,197,245,42,75, 92,17,37,0,25,6,32,126,43,5,254, 32,40,249,4,4,120,50,126,110,241 ,193,209,225,201

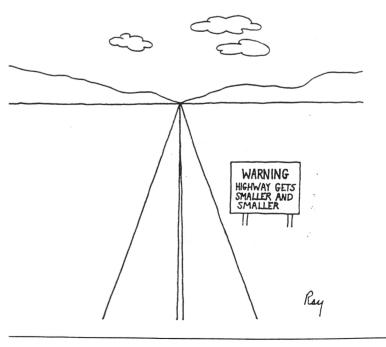
If you wish to check your from line 9000 to 9190 for entry, enter this basic program 9500, run it using GO TO using GO TO 8000, to enter the code into memory. 9500 RESTORE 9000: LET A=0 9510 FOR X=1 TO 820: READ L 9520 LET A=A+L: NEXT X 9530 IF A<>93059 THEN PRINT "CHE CK LISTING FOR ERROR" 9540 IF A=93059 THEN PRINT "DATA OK": BEEP 1.1

This is it, I hope you have fun. In the next issue of this column

I will try to have VU-CALC+80 all polished up for you. I like to mention that VU-FILE & VU-CALC are two programs published by PSION. Also my apoligies for not giving credit to Roelof Mulder for using some of his ideas and small portions of his original Menu-Loader program in my version of it.

Sorry about that, so much for being a novice in writing a column like this, and trying to meet a deadline. When I started writing the thought was there to give credit to Mr. Molder and John Oliger, but in the heat of the battle I forgot. Anyways my apologies. What bothers me though is the way this omission was brought to my attention by MR. Mulder via the Editor of this Newsletter, totally discrediting efforts as having "made a few minor changes presumably by" me, and so on. It would certainly help the Timex-Sinclair community, if such oversights or any other could be brought to the attention of writers in a more civilized manner. Right now I feel like discontinuing writing this column, well as writing or rewriting any software for publication, who needs this.

Good luck! Enjoy....
till next month, maybe!
Rudy Hilsmann.



Video tapes of the 2nd Annual Midwest Computerfest and the seminars. Prices and listing of the seminars to follow. There is a video of the 1st Annual Midwest Computerfest for \$8. This price includes the video tape and shipping. Mention VHS or BETA.

The prices for the 1987 Computerfest are as follows:

The first seminar is \$10 this includes tape and shipping. Each seminar after that is \$2 up to 5 more seminars. This would be \$20 for a group of 6 seminars. Since there are 12 seminars the total cost for all the seminars would be \$40. The following are a list of titles available:

"MACHINE CODE FOR THE ZX81"

"DESK TOP PUBLISHING"

"THE FORTH LANGUAGE"

"GRAPHICS ON THE TS2068/SPECTRUM"

"HARDWARE INTERFACING 1"

"HARDWARE INTERFACING 2"

This is Saturday (1) and Sunday (2)

"PRINTER AND PRINTER INTERFACES"

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PRES FROM THE

With this being the annual meeting and elections I would normally mention the list of candidates and wish them luck but since the slate is only those who are already in office it is not necessary. I am sorry that so few of you are interested in the club enough to make an effort to keep it going. I suppose this is not any different than any other club. Well I do want to thank the members who helped the group last year and those helping this year.

Ham and Computer fests comming up Saturday March 5, MSDE, 1121 N. Milwaukee St. Milwaukee, 8am -2pm.

Sunday April 10, the Dane County Expo Center, Madison 8am - ?. Sat. May 7. Circle B Recreation Center, Cedarburg Hy 60 & County I Saturday May 14, Manitowoc county Expo. Manitowoc 8am - ?

VISA

FOR SALE:

If you have anything for sale, you can advertise it for free in this newsletter (provided you're a SMUG Our newsletter reaches an member). ever-growing number of TS User Groups throughout the country. increasing your chances of a sale.

Need any 2 sided double density disks?

I have boxes of 10, still sealed, #1 rated FUJI disks for \$6 a box. If you want any call, write or ask me at the meeting.

> Bill Heberlein 5052 N. 91st St. Milwaukee, WI 53225

Dr. Lloyd Dreger has his second "Machine Code" book ready. This book takes up where the last one left off. This book will take you deeper into the intricacies of that monster, machine code programming.

The price will be the same as the other book \$16.95 (SMUG members \$15.00) plus \$1.50 S&H.

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SMUG Bytes

EDITORS Page? well at least a paragraph or two

Please notice a new/old advertiser 2nd BYTES. Skip is back and bigger than ever. The old partners went out of busines and Skip is running it by himself. He has some good hardware deals amd some books and CPM programs. All at used prices but good quality.

I subsrcibed to that new TS
newsletter/magazine TS2068 SAFE
DISK UP-DATE. It seems that this
newsletter will be the clearing
point for disk news and information
for all the different disk systems.
There address is 1317 Stratford
Ave. Panama City, FL 32404. It's
cost is \$12 per year with 4 issues
per year to start. The idea is to
increase to 6 issues per year if
the subscription rate reaches 300.

LETTERS

Mr. Roelof Mulder from Gatineau Quebec sent a letter in which he said the program, in last months newsletter, was originally written by him. I talked to R. Hilsmann about it and he said that he has never seen the program before but has seen the Oliger boot program. didn't care for it and wrote his own. SMUG Bytes will gladly recognize the writters of programs but I feel that Mr. Hilsmann is an accomplished programmer and he wrote it from scratch. He may have been influenced by John Oligers version of Roelof Mulders program but there are only so many ways to write the code. So if there was any copping it was unintentional and we do acknowledge Mr. Mulders boot program.

I also got a letter from John Sheppard. He likes the information on the FD68 disk drives and MSCRIPT. If anyone out there has any requests please send them to me and I will respond. Let it be known that we play requests.

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